



Edison Wetlands Association, Inc.

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December 8, 2000

Mr. Peter Mannino
Remedial Project Manager- Cornell Dublier Superfund Site
US Environmental Protection Agency
290 Broadway, 19th Floor
New York, NY 10007

Dear Mr. Mannino,

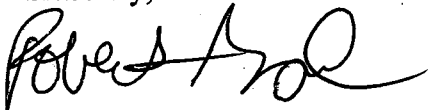
Please find enclosed the EWA follow up Site Inspection report for the Cornell-Dublier Superfund Site in South Plainfield, NJ. We believe that this site still constitutes a public health hazard due to the fact that human beings and wildlife have been and continue to be exposed to levels of chemical contamination that has resulted in adverse health effects.

Any assistance you can give us in addressing the issues outlined in the site inspection would be greatly appreciated.

Please contact my office if you need additional information or if you would like to discuss this report.

Thank you in advance for your assistance.

Sincerely,



Robert Spiegel
Executive Director

Edison Wetlands Association

Site Inspection Field Form

Date: Friday, October 13, 2000

Time: 10:30 am

Weather: Sunny and cool

Site Name: Cornell-Dubilier Superfund Site

Site Location: Hamilton Blvd., South Plainfield, New Jersey

Participants: Robert Spiegel, Edison Wetlands Association, 732-661-1660
Peter Mannino, US Environmental Protection Agency, 212-637-4395

Purpose: Follow up to September 9, 1999 Site Inspection

Background:

The Cornell Dubilier Electronics Superfund Site, is located at 333 Hamilton Boulevard in South Plainfield, Middlesex County, New Jersey (see Attachment A-1 for General Site map), and bounded by Spicer Avenue and Hamilton Boulevard. The 25-acre site is bordered by commercial businesses and residences on the south, west, north and southeast, and by the Bound Brook to the east and northeast. It is estimated that 540 persons reside within 0.25 miles of the site; the nearest residence is approximately 200 feet from the site. EWA conducted an initial site inspection of the site and off-site conditions on September 9, 1999.

During the 1950s, Cornell-Dubilier Electronics, Inc., manufactured electronic parts and components, and tested transformer oils. Discarded electronic components were landfilled on-site and transformer oils contaminated with PCBs were reportedly dumped directly onto site soils. The company vacated the site in the early 1960's.

The site is currently known as Hamilton Industrial Park and is occupied by an estimated 15 commercial businesses. Numerous tenant companies have operated at the site over the years. A paved driveway used to enter the park ends within 100 yards of the entrance. It has been observed that vehicles entering the industrial park during dry conditions create airborne dust. The driveway leads into what was formerly a dirt, gravel, and stone roadway that nearly encircles the business structures at the site, and separates the structures from a heavily vegetated vacant field. The EPA paved the roadway in September 1997 as part of the site stabilization process to mitigate the migration of contaminated dust.

The vacant lot in the rear of the property was not addressed under this EPA action and has been found to contain PCB contamination as high as 550,000 Parts Per Billion (PPB) and lead levels as high as 22,500 Parts Per Million (PPM). Cadmium contamination was found at levels as high as 152 PPM. (See Attachments B-1, B-2, and B-3 for ATSDR Tox-FAQ information and summaries on contaminants.) Contamination from this site has been found in and around on-site businesses, residential homes, in the Bound Brook, and in fish in the Bound Brook and surrounding lakes, including New Market Pond.

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Description of Inspection:

Robert Spiegel (EWA) met EPA Representative Peter Mannino at the EPA trailer at the site. A site walk followed a discussion of remedial investigation activities. After donning appropriate Personal Protective Equipment (PPE), the inspection team entered the site through the former truck-driving school entrance. EPA explained that the remedial investigation was winding down. The EPA had conducted 144 soil samples, and 11 test pits were excavated with one sample collected from each pit. Capacitors encountered during the test pit excavations were removed and drummed for off-site disposal.

1. The inspection team went to the rear of the site to inspect the sedimentation control measure recommendations outlined in the site inspection report. The previously identified areas where materials were exposed were covered with soil and vegetated. Hay bales were installed but the design did not allow for adequate sedimentation control (see figure 1 site map).



Hay bails installed as sedimentation controls

2. A previously unidentified area adjacent to the Bound Brook wetlands was also found to contain drums and pails. EPA removed the drums, over-packed them on site and installed some hay bales for sedimentation control. EPA took a sample of a black oily material on the ground for chemical analysis. The soil along the edge of the property appeared to contain black material similar to material EPA had identified and sampled.
3. The team proceeded to the corner of the site where fencing appeared to be breached. Area residents used this area as a trail prior to EPA securing to the site. The northeast corner of the site had substances consistent with materials that appear to make up the entire edge of the property bordering the Bound Brook wetlands. EPA stated that a sample was also collected at this location.

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4. At the grassy area, next on the site inspection, uncovered soil piles were noticed. EPA stated that 2 test pits were done in this area and additional sampling may be conducted in Phase 2 of site characterization.
5. The next location was at the site adjacent to Spicer Avenue. The EPA identified 3 additional lots along Spicer Avenue that were recently sampled; 18 - 23 samples were conducted per lot. EPA contractors under the direction of EPA On-Scene Coordinator Nick McGriples, collected over 850 samples in neighborhoods around the site. All interior work has been done in the residential homes. Industrial building on the site was sampled using dust wipe samples to determine cleanup eligibility under the removal program.
6. According to EPA, six to eight 55-gallon drums were removed from Area 6a during the investigation, and ten to twelve 55-gallon drums were removed from Area 6b. An unspecified number of drums and pails were removed from Area 6c during the investigation. Drums and pails were staged in area 6c awaiting characterization and disposal. Fencing at this location was missing and in disrepair. Hills and debris were located in several areas. When questioned, EPA stated it was possible there were additional drums and pails in this area.
7. The team proceeded to the site entrance, removed PPE, and returned to the EPA trailer. A discussion followed about the soil pile in Columbus Park - reportedly dredge piles from New Market Pond. EWA proposed sampling the pile in order to stimulate EPA action. EPA indicated no specific number of samples could be recommended and, theoretically, one sample showing elevated PCB's would stimulate EPA action and additional sampling. EPA recommended that EWA check the EPA web site for guidance on characterization of soil piles. The inspection ended at approximately 12:30pm.

EWA Conclusions:

While considerable work has been done at the site since the 1999 inspection, additional work should be considered to address issues that may pose a risk to both human health and the environment.

Recommendations:

- ♦ EPA should securing fencing at the site. Several areas along the site require maintenance. The rear of the property along the Bound Brook does not appear to be fenced.
- ♦ The US EPA Biological Technical team (B-TAG) should evaluate the transport and eventual disposal of contamination that continues to leave the site. The skull and bones of a deer were found along with evidence that many other animals and birds continue to use the site. The area directly behind the property, where black oily material and drums are located along the Bound Brook, is a turtle and amphibian breeding area. The grasshoppers and other insect life observed at the site present an ecological fate and transport problem for bioaccumulation of PCB's and other metals.
- ♦ All exposed soil piles at the site require stabilization. The soil piles should either be vegetated or covered with an impervious geo-textile fabric. Distribution of contaminated soil through air

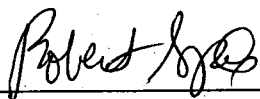
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particulates appears to have been addressed through the implementation of the site-wide stabilization order with the exception of the soil piles.

- ◆ An expedited evaluation of the removal of exposed material in the rear of the property and along areas 6a, 6b, and 6c. These areas, especially those at the rear of the property, pose a potential risk to trespassers and the environment.
- ◆ Sedimentation control hay bales should be upgraded to prevent additional sediments from leaving the site. EPA should use the model from the Horseshoe Road Superfund Site, Sayreville, NJ.
- ◆ Off-site soil piles in Columbus Park need to be sampled and addressed. EPA should consider this for the Phase 2 sampling program.
- ◆ EPA should revisit the idea of hot spot removal for several areas in the Bound Brook where elevated areas of contaminants were detected.
- ◆ Off-site soil samples taken from the neighborhood characterization should be completed on an expedited basis to identify additional areas (if any) requiring remediation.

Report Prepared By:



Robert Spiegel:
Edison Wetlands Association

Distribution:

Congressman Mike Ferguson
Congressman Frank Pallone
Daniel J. Gallagher, Mayor, Borough of South Plainfield
South Plainfield Borough Council
Larry Randolph, South Plainfield Environmental Commission
Peter Mannino, US EPA

General Site Map Cornell-Dubilier Superfund Site Site Inspection Report

Polychlorinated Biphenyls¹

HIGHLIGHTS: Polychlorinated biphenyls are a mixture of individual chemicals which are no longer produced in the United States, but are still found in the environment. Polychlorinated biphenyls can cause irritation of the nose and throat, and acne and rashes. They have been shown to cause cancer in animal studies. Polychlorinated biphenyls have been found in at least 363 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What are polychlorinated biphenyls?

Polychlorinated biphenyls (PCBs) are a group of manufactured organic chemicals that contain 209 individual chlorinated chemicals (known as congeners). PCBs are either oily liquids or solids and are colorless to light yellow in color. They have no known smell or taste. There are no known natural sources of PCBs. Some commercial PCB mixtures are known in the United States by their industrial trade name, Aroclor. PCBs don't burn easily and are good insulating material. They have been used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. The manufacture of PCBs stopped in the United States in 1977 because of evidence that they build up in the environment and cause harmful effects. Products containing PCBs are old fluorescent lighting fixtures, electrical appliances containing PCB capacitors, old microscope oil, and hydraulic fluids.

What happens to PCBs when they enter the environment?

- Before 1977, PCBs entered the air, water, and soil during their manufacture and use.
- Today, PCBs can be released into the environment from hazardous waste sites that contain PCBs, illegal or improper dumping of PCB wastes, and leaks from electrical transformers containing PCBs.
- PCBs may be carried long distances in the air; they remain in the air for approximately 10 days.
- In water, a small amount of the PCBs may remain dissolved, but most sticks to organic particles and sediments.
- PCBs in water build up in fish and marine mammals and can reach levels thousands of times higher than the levels in water.

How might I be exposed to PCBs?

- Eating food, including fish, meat and dairy products containing PCBs
- Breathing air near hazardous waste sites that contain PCBs
- Drinking PCB-contaminated well water
- Repairing or maintaining PCB transformers

How can PCBs affect my health?

Animal testing is sometimes necessary to find out how toxic substances might harm people or to treat those who have been exposed. Laws today protect the welfare of research animals and scientists must follow strict guidelines. People exposed to PCBs in the air for a long time have experienced irritation of the nose and lungs, and skin irritations, such as acne and rashes.

It is not known whether PCBs may cause birth defects or reproductive problems in people. Some studies have shown that babies born to women who consumed PCB-contaminated fish had problems with their nervous systems at birth. However, it is not known whether these problems were definitely due to PCBs or other chemicals. Animals that breathed very high levels of PCBs had liver and kidney damage, while animals that ate food with large amounts of PCBs had mild liver damage. Animals that ate food with smaller amounts of PCBs had liver, stomach, and thyroid gland injuries, and anemia, acne, and problems with their reproductive systems. Skin exposure to PCBs in animals resulted in liver, kidney, and skin damage.

The Department of Health and Human Services (DHHS) has determined that PCBs may reasonably be anticipated to be carcinogens.

¹ Summarized from the Agency for Toxic Substances and Disease Registry ToxFAQ's on PCB's

Lead¹

SUMMARY: Exposure to lead happens mostly from breathing workplace air or dust, and eating contaminated foods. Children can be exposed from eating lead-based paint chips, or playing in contaminated soil. Lead can damage the nervous system, kidneys, and the immune systems. Lead has been found in at least 922 of 1,300 National Priorities List sites identified by the Environmental Protection Agency.

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. It has no special taste or smell. Lead can be found in all parts of our environment. Most of it came from human activities like mining, manufacturing, and the burning of fossil fuels.

Lead has many different uses, most importantly in the production of batteries. Lead is also in ammunition, metal products (solder and pipes), roofing, and devices to shield x-rays. Because of health concerns, lead from gasoline, paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years.

What happens to lead when it enters the environment?

- Lead itself does not break down, but lead compounds are changed by sunlight, air, and water.
- When released to the air from industry or burning of fossil fuels or waste, it stays in air about 10 days.
- Most of the lead in soil comes from particles falling out of the air.
- City soils also contain lead from landfills and leaded paint.
- Lead sticks to soil particles.
- It does not move from soil to underground water or drinking water unless the water is acidic or "soft".
- It stays a long time in both soil and water.

How might I be exposed to lead?

- Breathing workplace air (lead smelting, refining, and manufacturing industries)
- Eating lead-based paint chips
- Drinking water that comes from lead pipes or lead soldered fittings
- Breathing or ingesting contaminated soil, dust, air, or water near waste sites
- Breathing tobacco smoke
- Eating contaminated food grown on soil containing lead or food covered with lead-containing dust
- Breathing fumes or ingesting lead from hobbies that use lead (leaded-glass, ceramics)

How can lead affect my health?

Lead can affect almost every organ and system in your body. The most sensitive is the central nervous system, particularly in children. Lead also damages kidneys and the immune system. The effects are the same whether it is breathed or swallowed. Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common after exposure to **high levels** of lead.

In adults, lead may decrease reaction time, cause weakness in fingers, wrists, or ankles, and possibly affect the memory. Lead may cause anemia, a disorder of the blood. It can cause abortion and damage the male reproductive system. The connection between these effects and exposure to **low levels** of lead is uncertain.

How likely is lead to cause cancer? The Department of Health and Human Services (DHHS) has determined that lead acetate and lead phosphate may reasonably be anticipated to be carcinogens based on studies in animals. There is inadequate evidence to clearly determine lead's carcinogenicity in humans.

¹ Summarized from the Agency for Toxic Substances and Disease Registry ToxFAQ's on Lead.

Cadmium¹

SUMMARY: Exposure to cadmium happens mostly in the workplace where cadmium products are made. The general population is exposed from breathing cigarette smoke or eating cadmium contaminated foods. Cadmium damages the lungs, can cause kidney disease, and may irritate the digestive tract. Cadmium has been found in at least 388 of 1,300 National Priorities List sites identified by the Environmental Protection Agency.

What is cadmium?

Cadmium (pronounced cad' me-um) is a natural element in the earth's crust. It is usually found as a mineral combined with other elements such as oxygen (cadmium oxide), chlorine (cadmium chloride), or sulfur (cadmium sulfate, cadmium sulfide). It doesn't have a definite taste or odor. All soils and rocks, including coal and mineral fertilizers, have some cadmium in them. The cadmium that industry uses is extracted during the production of other metals like zinc, lead, and copper. Cadmium does not corrode easily and has many uses. In industry and consumer products, it is used for batteries, pigments, metal coatings, and plastics.

What happens to cadmium when it enters the environment?

- Cadmium enters air from mining, industry, and burning coal and household wastes.
- Cadmium particles in air can travel long distances before falling to the ground or water.
- It enters water and soil from waste disposal and spills or leaks at hazardous waste sites.
- It binds strongly to soil particles.
- Some cadmium dissolves in water.
- It doesn't break down in the environment, but can change forms.
- Fish, plants, and animals take up cadmium from the environment.
- Cadmium stays in the body a very long time and can build up from many years of exposure to low levels.

How might I be exposed to cadmium?

- Breathing contaminated workplace air (battery manufacturing, metal soldering or welding)
- Breathing cadmium in cigarette smoke (doubles the average daily intake)
- Drinking contaminated water
- Breathing contaminated air near the burning of fossil fuels or municipal waste

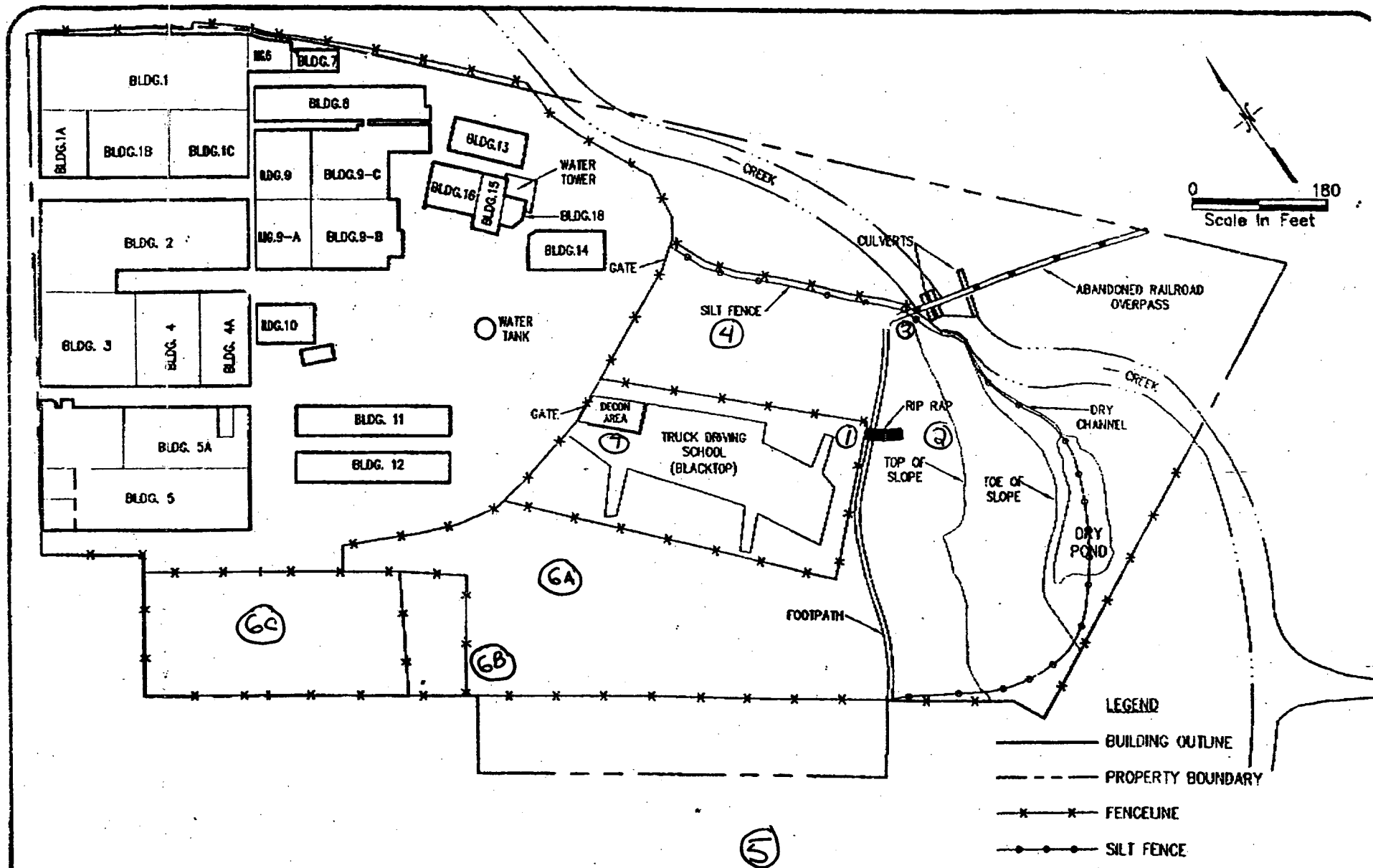
How can cadmium affect my health?

Breathing **high levels** of cadmium severely damages the lungs and can cause death. Eating food or drinking water with **very high levels** severely irritates the stomach, leading to vomiting and diarrhea. Long term exposure to lower levels of cadmium in air, food, or water leads to a build up of cadmium in the kidneys and possible kidney disease. Other potential long term effects are lung damage and fragile bones. Animals given cadmium in food or water show high blood pressure, iron-poor blood, liver disease, and nerve or brain damage. We don't know if humans get any of these diseases from eating or drinking cadmium.

Skin contact with cadmium is not known to cause health effects in humans or animals.

How likely is cadmium to cause cancer? The Department of Health and Human Services (DHHS) has determined that cadmium and cadmium compounds may reasonably be anticipated to be carcinogens.

¹ Summarized from the Agency for Toxic Substances and Disease Registry ToxFAQ's on Cadmium.



ENVIRON

SITE PLAN
HAMILTON INDUSTRIAL PAK
SOUTH PLAINFIELD, NEW JERSEY

FIGURE
1